

- CLAIMS:

1. A cytotoxic Epstein-Barr virus T-cell epitope, the epitope being selected from the group consisting of QVKWRMTTL, VFSDGRVAC, VPAPAGPIV, TYSAGIVQI, LLDFVRFMGV, QNGALAINTF, VSSDGRVAC, 5 VSSEGRVAC, VSSDGRVPC, VSSDGLVAC, VSSDGQVAC, VSSDGRVVC, VPAPPVGPIV, VEITPYEPTG, VEITPYEPTW, VELTPYKPTW, RRIYDLIKL, RKIYDLIEL and PYLFWLAGI.

2. A subunit vaccine, the vaccine including at least one T-cell epitope selected from the group consisting of QVKWRMTTL, VFSDGRVAC, 10 VPAPAGPIV, TYSAGIVQI, LLDFVRFMGV, QNGALAINTF, VSSDGRVAC, VSSEGRVAC, VSSDGRVPC, VSSDGLVAC, VSSDGQVAC, VSSDGRVVC, VPAPPVGPIV, VEITPYEPTG, VEITPYEPTW, VELTPYKPTW, RRIYDLIKL, RKIYDLIEL and PYLFWLAGI.

3. A vaccine as claimed in claim 2 in which the subunit vaccine 15 includes at least one further epitope selected from the group consisting of TSLYNLRRGTALA, DTPLIPLTIF, TVFYNIPPMPL, VEITPYKPTW, VSFIEFVGW, FRKAQIQGL, FLRGRAYGL, QAKWRLQTL, SVRDRLARL, YPLHEQHGM, HLAAQGMAY, RPPIFIRRL, RLRAEAGVK, IVTDFSVIK, AVFDRKSDAK, NPTQAPVIQLVHAVY, LPGPQVTAVLLHEES, 20 DEPASTEPVHDQLL, RYSIFFDY, AVLLHEESM, RRARSLAERY, EENLLDFVRF, KEHVIQNAF, RRIYDLIEL, QPRAPIRPI, EGGVGWRHW, CLGGLLTMV, RRRWRRLTV, RAKFKQLL and RKCCRAFKQLLQHYR.

4. A vaccine as claimed in claim 2 or claim 3 in which the subunit vaccine includes the cytotoxic T-cell epitopes LLDFVRFMGV, QVKWRMTTL and FLRGRAYGL. 25

5. A vaccine as claimed in claim 2 or claim 3 in which the subunit vaccine includes the cytotoxic T-cell epitopes LLDFVRFMGV, QVKWRMTTL, FLRGRAYGL and EENLLDFVRF.

6. A vaccine as claimed in claim 2 or claim 3 in which the subunit vaccine includes the cytotoxic T-cell epitopes LLDFVRFMGV, QVKWRMTTL, FLRGRAYGL and QPRAPIRPI. 30

7. A vaccine as claimed in claim 2 or claim 3 in which the subunit vaccine includes the cytotoxic T-cell epitopes LLDFVRFMGV, QVKWRMTTL, FLRGRAYGL, EENLLDFVRF and QPRAPIRPI.

8. A vaccine as claimed in any one of claims 2 to 7 in which the vaccine further includes at least one antigen to which the individual will 35

mount an anamnestic response in addition to the at least one cytotoxic T-cell epitope.

9. A vaccine as claimed in claim 8 in which the at least one antigen is selected from the group consisting of tetanus toxoid, diphtheria toxoid,

5 Bordetella pertussis antigens, poliovirus antigens, purified protein derivative (PPD), gp350 protein, helper epitopes and combinations thereof.

10. A vaccine as claimed in claim 9 in which the at least one antigen is tetanus toxoid.

11. A vaccine as claimed in any one of claims 2 to 10 in which the vaccine comprises a water-in-oil formulation

12. A nucleic acid vaccine, the vaccine including a nucleic acid sequence encoding at least one of the cytotoxic T-cell epitopes selected from the group consisting of QVKWRMTTL, VFSDGRVAC, VPAPAGPIV, TYSAGIVQI, LLDFVRFMVG, QNGALAINTF, VSSDGRVAC, VSSEGRVAC, 15 VSSDGRVPC, VSSDGLVAC, VSSDGQVAC, VSSDGRVVC, VPAPPVGPIV, VEITPYEPTG, VEITPYEPTW, VELTPYKPTW, RRIYDLIKL, RKIYDLIEL and PYLFWLAGI.

13. A nucleic acid vaccine as claimed in claim 12 in which the nucleic acid sequence encodes at least one additional cytotoxic T-cell epitope

20 selected from the group consisting of TSLYNLRRGTALA, DTPLIPLTIF, TVFYNIPPMPL, VEITPYKPTW, VSFIEFVGW, FRKAQIQGL, FLRGRAYGL, QAKWRLQTL, SVRDRLARL, YPLHEQHGM, HLAAQGMAY, RPPIFIRRL, RLRAEAGVK, IVTDFSVIK, AVFDRKSDAK, NPTQAPVIQLVHAYV, LPGPQVTAVLLHEES, DEPASTEPVHDQLL, RYSIFFDY, AVLLHEESM, 25 RRARSLSAERY, EENLLDFVRF, KEHVIQNAF, RRIYDLIEL, QPRAPIRPI, EGGVGWRHW, CLGGLLTMV, RRRWRRLLTV, RAKFKQLL and RKCCRAKFKQLLQHYR.

14. A nucleic acid vaccine as claimed in claim 12 or claim 13 in which the nucleic acid sequence encodes LLDFVRFMVG, QVKWRMTTL and

30 FLRGRAYGL, or LLDFVRFMVG, QVKWRMTTL, FLRGRAYGL and EENLLDFVRF, or LLDFVRFMVG, QVKWRMTTL, FLRGRAYGL and QPRAPIRPI, or LLDFVRFMVG, QVKWRMTTL, FLRGRAYGL, EENLLDFVRF and QPRAPIRPI.